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12/21/2004

Xavier Muldermans

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EXAMINER

JOHNSON, CONNIE P

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/518,985  
Filing Date: December 21, 2004  
Appellant(s): MULDERMANS ET AL.

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Jason Bryan  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 4/6/2009 appealing from the Office action mailed 9/30/2008.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

6,127,094

Victor et al.

10-2000

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11-14 and 17-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Victor et al., U.S. Patent No. 6,127,094

Victor teaches a photopolymerizable composition for use in flexographic printing plates (abstract). The composition comprises an elastomer forming monomer in an amount of 25-95 mol% and a photopolymerization initiator at 0.01 to 20 wt %. The composition also has a support that comprises polyethylene terephthalate (col. 12, line 17). The photopolymerizable composition may also produce a resin relief plate for flexographic printing (col. 11, lines 55-60). Victor also teaches optional linear polymers for inclusion in the block copolymer component of the photopolymerizable composition. The composition also comprises up to 50 wt% of a thermoplastic elastomeric block polymer having a general formula of A-B-A, wherein A is a non-elastomeric polymer block with a molecular weight of 2,000 to 100,000 and B is an elastomeric polymer block having a molecular weight of 25,000 to 1,000,000 and a glass transition

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temperature below 10°C (col. 3, line 45-col. 4, line 9). Victor also teaches an ethylenically unsaturated monomer in an amount of 5 to 70 wt% in the composition. Suitable ethylenically unsaturated compounds are polyfunctional vinyl monomers such as methacrylic acid, acrylic acid and trimethylolpropane tri(meth)acrylate (col. 4, lines 45-67). The block copolymers may comprise isoprene and butadiene (col. 7, lines 51-65). Although Victor teaches block copolymers in an amount of 10 to 50 wt% in the composition, he does not specifically teach that the block copolymers are present in an 20/80 to 80/20 of isoprene/butadiene. However, it would have been obvious to one of ordinary skill in the art to use the isoprene and butadiene in a copolymer mixture of 20/80 to 80/20 because Victor teaches combining linear polymers, such as isoprene and butadiene to form water-resistant resin compositions after photopolymerization (col. 3, lines 20-38 and col. 8, lines 1-25).

### **(10) Response to Argument**

Appellant argues that the present claims recite a photopolymerization composition “consisting essentially of” components (a)-(d), wherein component (a) includes a block copolymer A-C-A or (A-C)<sub>n</sub>X and that the transitional phrase “consisting essentially of” is being ignored in the response to arguments. Appellant also respectfully submits that the transitional phrase is being ignored. Appellant includes the examiner makes an argument regarding isoprene and butadiene as being components of a block copolymer in Victor, which even if correct, still falls outside of the present claims.

The examiner has not ignored the transitional phrase in the office action mailed 9/30/2008. See the bottom of page 4 and top of page 5 in the office action, where it is

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noted “Applicant is directed to column 3, lines 45-col. 4, line 9 wherein Victor teaches a composition comprising an elastomeric monomer, an ethylenically unsaturated compound, a photopolymerization initiator and an elastomer block copolymer.

Although Victor teaches the liquid isoprene and liquid butadiene as optional linkages in the block in column 7 of the reference, Victor teaches that liquid isoprene and liquid butadiene meet the limitations of monomers for the block copolymer in component (E) (col. 7, lines 40-52). The elastomeric block copolymer of Victor, including the linkages of isoprene/butadiene, continues to read on applicants’ formula A-C-A. Therefore, it is not different and is not in addition to the elastomeric block and meets the limitations of applicants’ claims”.

Victor continues to read on the claimed invention because the instant claims are drawn to a block copolymer with the formula: A-C-A. Victor teaches a block copolymer with a formula A-B-A, the block copolymer may comprise linear components, such as isoprene and butadiene (col. 7, lines 50-52 and col. 8, lines 1-15). These are the same as appellant’s block. Victor also teaches the composition comprises an elastomeric monomer, an ethylenically unsaturated compound, and a photopolymerization initiator. Therefore, the composition of Victor falls within the scope of the claimed invention.

Appellant argues that as noted in the MPEP 2111.03, the transitional phrase “consisting essentially of” limits the scope of a claim to the specified materials or steps and those that do not materially affect the basic and novel characteristics of the claimed invention. Further, that the composition of Victor requires additional components

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which would materially affect the basic and novel characteristics of the claimed invention.

Appellant is directed to column 3, lines 45-column 4, line 9 wherein Victor teaches a composition comprising an elastomeric monomer, an ethylenically unsaturated compound, a photopolymerization initiator and an elastomeric block copolymer. Although Victor teaches the liquid isoprene and liquid butadiene as optional linkages in the block in column 7 of the reference, Victor teaches that the liquid isoprene and liquid butadiene meet the limitations of monomers for the block copolymer in component (E). Therefore, the liquid isoprene and liquid butadiene are not extra components in the composition of Victor. Further, applicant adds the same limitations he seeks to exclude into the instant claims. See claim 11, component (d) where appellant includes 0-40% of what appellant refers to as auxiliaries. The "auxiliaries" include more block copolymers, which easily encompass any additional block copolymer Victor allegedly teaches. It is important to note an auxiliary at an amount of 40% appears to be a large part of a composition and not some merely optional unimportant component.

Appellant argues that the additional components taught by Victor are essential to the composition to allow for water processing and therefore would affect the basic and novel characteristics of the claimed invention.

Although Victor teaches component (A) as essential monomers in the composition, appellant claims a composition "consisting essentially of" an optional component (d) in amounts of 0 to 40% by weight. It is not clear how a composition is

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“consisting essentially of” an optional component in amounts up to 40% by weight. The liquid isoprene and liquid butadiene are not extra components in the composition of Victor. The liquid isoprene and liquid butadiene are monomers for the block copolymer in component (E). Therefore, the isoprene and butadiene in the block copolymer are essential components to the composition of Victor.

Appellant argues that Victor requires additional components A(i)-A(iii) which fall outside the scope of the claims, with components (A)(i) and (A)(iii) by themselves causing Victor to fall outside the scope of the claims.

Although Victor teaches component (A) as essential monomers in the composition, appellant claims a composition “consisting essentially of” an optional component (d) in amounts of 0 to 40% by weight. It is not clear how a composition is “consisting essentially of” an optional component in amounts up to 40% by weight. However, Victor teaches a composition comprising an elastomeric monomer, an ethylenically unsaturated carboxylic acid, a polyfunctional vinyl monomer and a block copolymer that includes isoprene and butadiene in an A-B-A block copolymer. This is the same as appellant claims. Therefore, the composition of Victor is within the scope of the claimed invention.

Appellant argues that the isoprene and butadiene mentioned in the office action filed September 30, 2008, are not encompassed by part (A) in Victor, but by component (E). Further, that the isoprene and butadiene polymers of Victor are linear polymers and are not the same as block copolymers having the formula A-C-A or (A-C)<sub>n</sub>X as claimed



and therefore the liquid isoprene and butadiene are treated differently than the block copolymers by Victor.

Victor specifically teaches the liquid isoprene and liquid butadiene are used in the block copolymer (col. 7, lines 40-52 and col. 8, lines 1-19). Victor teaches the block copolymer includes isoprene and butadiene in an A-B-A block copolymer. Therefore, the composition of Victor is within the scope of the claimed invention. Although Victor teaches component (A) as essential monomers in the composition, appellant claims a composition "consisting essentially of" an optional component (d) in amounts of 0 to 40% by weight. It is not clear how a composition is "consisting essentially of" an optional component in amounts up to 40% by weight.

Appellant argues that the statement in the advisory action of January 26, 2009, "in component (d) of the claimed invention, appellant discloses a block copolymer with the formula A-C-A" is incorrect and that the block copolymer is in component (a) of claims 11 and 24. Further, appellant argues that the liquid isoprene and liquid butadiene are not the same as block copolymers and should not be confused with block copolymers having the formula A-C-A.

Examiner acknowledges that the statement in the advisory action is incorrect. The block copolymer with isoprene and butadiene is component (a) of the claimed invention. However, Victor teaches a block copolymer with the formula A-B-A, the block copolymer includes linear components, such as isoprene and butadiene. These are the same as appellants' block in part (a) of the claimed invention. Although Victor teaches component (A) as essential monomers in the composition, appellant claims a

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composition "consisting essentially of" an optional component (d) in amounts of 0 to 40% by weight. It is not clear how a composition is "consisting essentially of" an optional component in amounts up to 40% by weight.

Appellant argues that even though liquid poly(isoprene) and liquid poly(butadiene) are recited as auxiliaries in claims 11 and 24, this still does not change the fact that Victor requires additional components, including the component (A) that causes Victor's composition to fall outside the instant claims.

Appellant's composition also requires additional components. Although Victor teaches component (A) as monomers in the composition, appellant claims a composition "consisting essentially of" an optional auxiliary component (d) in amounts of 0 to 40% by weight. It is not clear how a composition is "consisting essentially of" an optional component in amounts up to 40% by weight. Further, Victor teaches a composition comprising an elastomeric monomer, an ethylenically unsaturated carboxylic acid, a polyfunctional vinyl monomer and a block copolymer that includes isoprene and butadiene in an A-B-A block copolymer. This is the same as appellant claims. Therefore, the composition of Victor is well within the scope of the claimed invention.

Appellant argues that the fact that part (d) of appellants' claims include optional auxiliaries does not prevent appellants from taking advantage of the transitional phrase "consisting essentially of." Appellant further argues that inclusion of Victor's component (A) in Victor's composition is outside of the scope of parts (a) through (d) of the present

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claims and their inclusion materially affects the basic and novel characteristics of the claimed invention.

A composition that “consists essentially of” components means that all of the disclosed components are in the composition. The language “optional auxiliaries” in component (d) means that component (d) may or may not be in the composition. Therefore, the composition may include other components that meet the limitations of component (d). Appellant discloses that component (d) is “optional.” However, it is unclear how an “optional” component can present in an amount of up to 40% of a composition without materially affecting the basic and novel characteristics of the composition.

Appellant argues that the inclusion of a block copolymer in Victor is entirely optional and that superior results are obtained by use of the block copolymer in the claimed invention. Appellant further argues that one of ordinary skill in the art would not expect such an improvement in the balance of properties (stability and hardness) from the disclosure of Victor where block copolymers are optional.

Appellant’s composition also includes additional components that are “optional”. Block copolymers are not optional in the composition of Victor. The block copolymers comprise up to 50% by weight of the composition (col. 3, line 62). Therefore, one of ordinary skill in the art would expect the the composition of Victor to have improved stability and hardness because Victor teaches a composition comprising an elastomeric monomer, an ethylenically unsaturated carboxylic acid, a polyfunctional vinyl monomer and a block copolymer that includes isoprene and butadiene in an A-B-A block

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copolymer. Although Victor teaches component (A) as monomers in the composition, appellant claims a composition "consisting essentially of" an optional auxiliary component (d) in amounts of 0 to 40% by weight. It is not clear how a composition is "consisting essentially of" an optional component in amounts up to 40% by weight.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Connie P. Johnson/

Examiner, Art Unit 1795

/Cynthia H Kelly/

Supervisory Patent Examiner, Art Unit 1795

**Conferees:**

Cynthia H. Kelly

/Cynthia H Kelly/

**Supervisory Patent Examiner, Art Unit 1795**

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**/Benjamin L. Utech/**

**Primary Examiner**